

**REGION 1
AIR MONITORING
NETWORK REDESIGN**

ATLANTA MEETING

September 10, 2003

The Regional Assessment

- **The redesign of the regional air monitoring program represent the collaborative efforts both in terms of input and resources of many groups including state, tribal and federal agencies, NESCAUM, MANE-VU, NERAQC, NEGECP and others.**
- **The air monitoring program is in a constant state of evolution and the number of sites, their locations and the parameters measured are constantly changing.**

The Region 1 Process

- **Began the process of re-assessing the New England air monitoring networks with a meeting on 3/12/01**
 - New England States and Tribes, NESCAUM, EPA
- **Discussed concerns, issues and program needs with the major stake holders**
- **Agreed on a process for conducting our regional assessment**
 - Each state/tribe began to review the existing networks to assess investment and disinvestment opportunities. These were submitted to the Region
- **The Region reviewed the submissions/meet with states and others**
- **A second regional meeting was held on January 28, 2003**
 - Discussed the regional network and disinvestments
- **The Region has been meeting with states/tribes individually to finalize their air monitoring proposals**

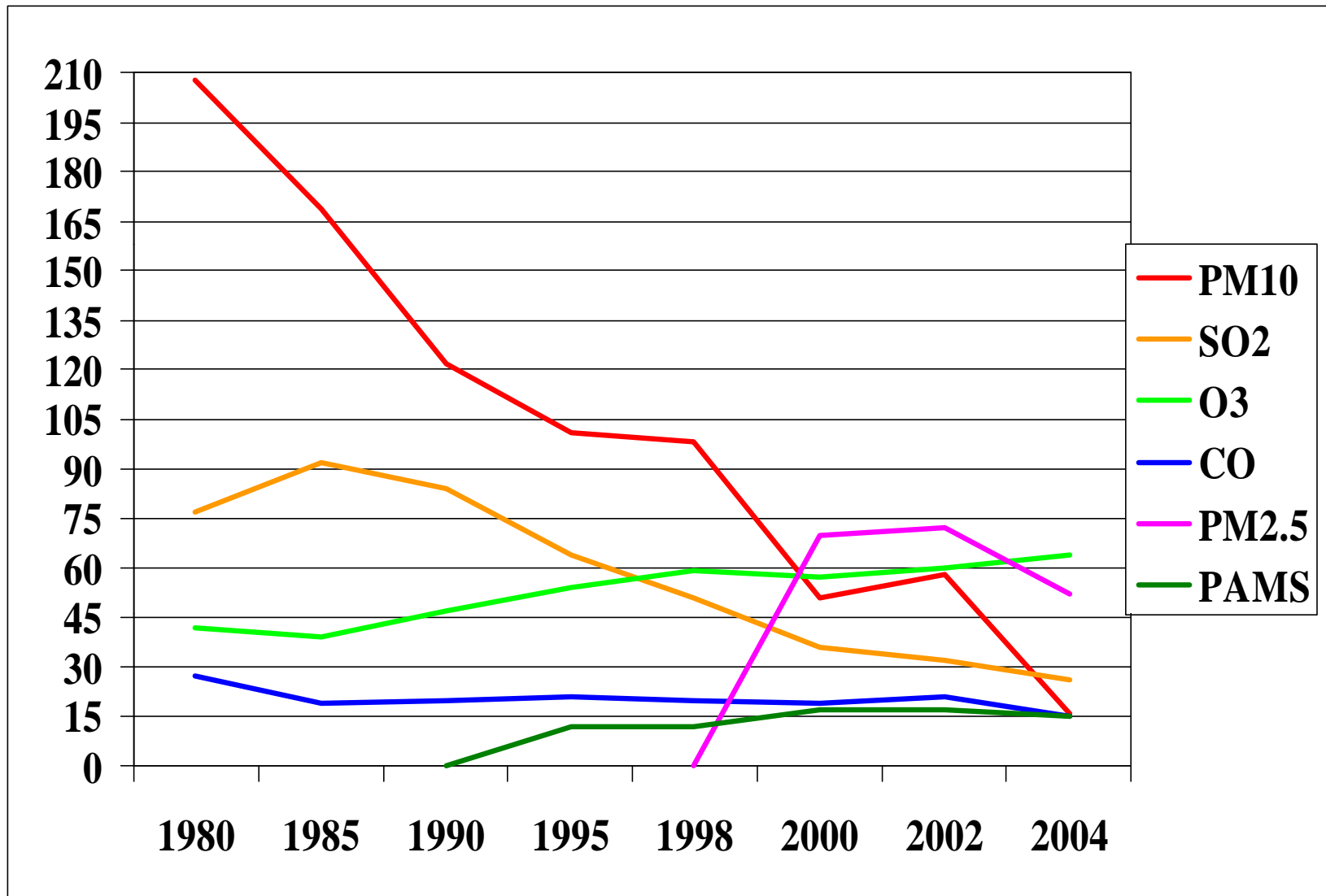
Complicating Factors

- **Bio-Watch**
- **OAQPS has not yet finalized**
 - the revisions to the monitoring regulations
 - the national air monitoring strategy
- **EPA, state and tribal data needs are in a state of flux**
- **State/tribal resources are limited and states/tribes are having trouble focusing on air monitoring network reassessment**
- **Difficulty in implementing New AIRS and retrieving data.**

CHANGES OVER THE LAST TEN YEARS

- **Added 70 PM_{2.5} FRM sites, 18 continuous PM_{2.5} samplers & 14 speciation samplers**
- **Added 18 PAMS sites**
- **Added ozone/PM mapping**
- **Added EMPACT monitoring (ME &MA)**
- **Added additional air toxics sites and pilot projects**
- **Implemented new Quality Assurance Project Planning requirements**

Changes in the number of New England Air Monitoring sites 1980 to 2004



With -

- **Essentially the same or in some cases less State and EPA staff**
- **Additional Federal Funds for PAMS & PM2.5**
- **Additional continuous equipment and computers**
- **Reductions in PM10, and SO2 monitoring**
- **Virtual elimination of Pb monitoring (77 to 2 sites)**

Current Situation

- **There are important data needs for PM, O₃, toxics, HAPs, regional haze & mapping programs.**
- **New data assessment, public access and QA efforts are needed**
- **Current state monitoring programs are stretched to their limits.**
- **Current budgets are tight with long delays in filling vacancies**

THE CHANGES #1

- *Ozone Program*
 - Relocated several sites to improve coverage for mapping
 - Added four tribal ozone sites
 - Will add several special study sites next summer in support of NOAA's intensive study
 - Based in part from the NESCAUM PAMS assessment contract with STI (1) revising the PAMS program by eliminating 3 (4?) sites, (2) adding NO_y at 6 sites, (3) reducing carbonyl measurements, (4) allowing RI to not operate one site in 2003, (5) adding low level CO and SO₂ at a few sites, (6) more to come

THE CHANGES #2

- *The PM Program*
 - Adding 18 additional PM2.5 continuous monitors for mapping, eliminating 19 FRM sites, and relocating several FRM sites to improve coverage/reduce costs
 - Adding 1 new PM2.5 speciation site and 9 Black Carbon sites
 - Reducing at least 42 of the 58 SSI PM10 sites
 - Modifying 23 PM2.5 FRM samplers to measure PM10 and locating them at PM2.5 to measure PMcoarse
 - Tribal operation of 3 IMPROVE sites, 1 PM2.5 continuous monitor, and 1 carbon analyzer
 - Added PM2.5 FRMs at 5 Canadian sites

THE CHANGES #3

- *The Other Criteria Pollutants*
 - We are striving to keep the critical long term trend sites in the Region
 - SO₂ reducing at least 6 sites (note several sites will be in support of UNH's asthma study) One new tribal site
 - CO reducing at least 6 sites (note we are meeting SIP Maintenance Plan requirements) One new tribal site
 - NO_x no net change MA is eliminating 2 sites and VT and ME are adding a site each. One new tribal site.
 - Pb only 1 site in Boston down from a high of 77 in the mid-eighties

THE CHANGES #4

- *The Air Toxics Program*
 - Adding national trend sites in Boston, Providence and Underhill, VT. CT plans to establish a similar type of site in New Haven by relocating a PAMS GC
 - Adding 9 new Black Carbon sites
 - Most sites in New England are temporary and the number will fluctuate from year to year - 26 in 02, 19 in 03, and 24 planned in 04.
 - Hg deposition sites will be reduced on the state side due to lack of funding. The tribes will be operating 2 sites

THE CHANGES #5

- *Acid Deposition*
 - The New England States and Tribes will continue to operate 9 sites.
- *Regional Haze*
 - The number of Haze-Cams will increase by 3
 - Working with MANE-VU/NESCAUM, there will be 2 Regional Haze Supersites at Mt. Mohawk, CT and Acadia NP.

In Closing:

- **See the handout for specifics, but note it is still draft**
- **This redesign represents an investment in new monitoring at 77 sites in New England**
- **There is a reduction of less critical monitoring at 86 sites.**
- **One major problem is that the new monitoring, for the most part, is more costly than the monitoring it replaces. We must continue to address funding/staffing issues and leverage funds, technology, and staff as much as possible**